

ADAMENKO, V.N.; VINNIKOV, K.Ya.

International symposium on radiation. Izv. AN SSSR. Fiz. atm. i
okeana 1 no.1:119-121 Ja '65. (MIRA 18:5)

L 63530-65 ENG(-)/MT(1) Re-5/dae-2
ACCESSION NR: AP5018705

UR/0050/65/000/008/0032/00:7
551.52

AUTHOR: Vinnikov, K. Ya.

TITLE: New calculation of the heat balance of the earth-atmosphere system

SOURCE: Meteorologiya i gidrologiya, no. 8, 1965, 32-37

TOPIC TAGS: thermal radiation, solar radiation, radiation balance, energy transformation, energy conservation, tropopause, meteorological element, heat balance, earth atmosphere system

ABSTRACT: The heat radiation balance of the earth-atmosphere system is discussed theoretically. The law of conservation and transformation of energy is taken into consideration, and the equation of the heat balance is applied to the system. This equation contains the energy spent for evaporation of water, the energy gained by water vapor condensation, and the heat consumed or received from horizontal motions in the atmosphere and hydrosphere. The radiation balance is the difference between the solar radiation received and the radiation emitted by the earth and atmosphere. A new formula is developed for the outgoing radiation, which contains the temperatures of the air near the ground and at the level of tropopause, and the density and pres-

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L 63538-65

ACCESSION NR: AP5018705

sure of the water vapor. Mean monthly sums of outgoing radiation are determined from means of meteorological elements. The distribution of heat in the earth-atmosphere system is computed for the whole globe in five-degree squares and presented in a map. The main property of the heat balance is its zonal distribution. The loss of heat takes place in high geographical latitudes. The quantity of heat increases toward the equator and changes its sign between 30 and 40° lat. Orig. art. has: 1 table and 11 formulas. [EG]

ASSOCIATION: Glavnaya geofizicheskaya observatoriya (Main Geophysical Observatory)

SUBMITTED: 04Dec64

ENCL: 00

SUB CODE: ESAA

NO REF SOV: 010

OTHER: 006

ATD PRESS: 4049

Card 2/2

LESOKHIN, I.G.; TSITOVICH, O.B.; BALABANOVICH, G.N.; VINNIKOV, L.I.

Analyzing the speed rate in the formation of a fluidized bed.
Trudy LTI no.59:83-94 '61. (MIRA 17:9)

BALABANOVICH, G.N.; VINNIKOV, L.I.; LESOKHIN, I.G.

Resistance to acids of acid-resistant bricks. Trudy LTI
no.59:95-100 '61. (MIRA 17:9)

VINNIKOV, L.M., ed.

The organization of communications in the USSR and abroad Moskva, Tekhnika upravleniia, 1931. 170 p. (40-17643)

HE7055.18

VINNIKOV, L.P.; YEGOSHIN, P.I. (Kazan')

Case of spontaneous pneumothorax in the contralateral lung in
test puncture of the thoracic cage. Klin.med. 39 no.1:144-147
Ja '61. (MIRA 14:1)

1. Iz kafedry ftiziatriti Kazanskogo instituta usovershenstvo-
vaniya vrachey imeni V.I. Lenina i Protivotuberkuleznogo sana-
toriya "Tarlovka."
(PNEUMOTHORAX) (PUNCTURES) (CHEST--SURGERY)

GUREVICH, G.; VINNIKOV, M.; YUDITSKIY, M.; KARP, I.

Clubs train public-spirited instructors. Voen.znan. 31 no. 4:9
Ap'55. (MIRA 8:10)

(Military education)

VINNIKOV, M. Ye., SYASINA, K. V. KORKUTS, V. N. and SHUMILOVA, T. V.

"The Distribution of Opisthorchosis Among the Population of Tobol'sk", Med. Paraz. i Paraz. Bolez., Vol. 17, No. 1, pp 122-26, 1948.

VINNIKOV, M. Ye. and YETOROVA, L. S.

"The Role of the Bacterial Factor in the Pathogenesis of Opisthorchosis", with notes by the editor, Med. Paraz. i Paraz. Bolez., Vol. 17, No. 2, pp 114-21, 1948.

38315 VINNIKOV, M. E.

Lyamblioz. Sov meditsina, 1949, No 12, s. 18-20

VINNIKOV, M.E.

"Opisthorchiasis." N.E. Plotnikov. Reviewed by M.E. Vinnikov. Med.
paraz. i paraz. bol. no.2:183-185 Ap-Je '54. (MLRA 7:8)
(LIVER FLUKE)

VINNIKOV, M.E., prof.

Clinical aspects and treatment of opisthorchosis. Trudy OMI no.25:
97-105 '59. (MIRA 14:10)

1. Iz kafedry gosital'noy terapii, Omskogo meditsinskogo instituta
imeni Kalinina, kafedroy prof. M.E.Vinnikov.
(LIVER FLUKE)

VINNIKOV, M.E., (Omsk)

Clinical picture and treatment of opisthorchosis. Klin.med. 36
no.6:15-26 Je '58 (MIRA 11:7)

1. Iz kafedry gosptal'noy terapii (zav. - prof. M.E. Vinnikov)
Omskogo meditsinskogo instituta imeni M.I. Kalinina.
(TREMATODE INFECTIONS, case reports,
opisthorchis infect (Rus))

YAKKER, N.I., arkhitektor serii 1-528KP; YATSEVICH, I.N.; VINNIKOV,
M.S., brigadir kompleksnoy brigady kamenshchikov; GONCHAROV,
F.I., master UNR-10

Let's improve the quality of designing and building. Biul.
tekhn.inform. po stroi. 5 no.11:28-29 M '59.
(MIRA 13:4)

1. Glavnyy inzhener UNR-10 tresta No.20 (for Yatskevich)
(Leningrad--Construction industry)

VINNIKOV, M.Ya.; MASHANSKIY, V.F.

Measuring the thickness of ultrathin sections by calculation.
TSitologiya 2 no.1:93-95 Ja-F '60. (MIRA 13:5)

1. Laboratoriya morfologii kletki Instituta tsitologii AN SSSR,
Leningrad.

(MICROSCOPY--TECHNIQUES)

BUNAKOV, Yu.L.; VINNIKOV, N.P.; SOROKIN, N.N., red.; KANDYKIN, A.Ye.,
tekhn. red.

[Maintenance of the roadbed; practices of the maintenance
forces of the Southern Railroad] Tekushchee soderzhanie
zemliannogo polotna; opyt puteitsev Iuzhnoi dorogi. Moskva,
Transzheldorizdat, 1952. 41 p. (MIRA 16:8)
(Railroads--Maintenance and repair)

VINNIKOV, P.L.

SOVIET UNION

No academic degree indicated

Department of Phthisiology of the Kazan Lenin's Institute for
Postgraduate Medical Training (Ftizeologicka katedra Kazanskeho
Leninova ustavu pro doskolovani lekaru);

Prague, Rozhledy v tuberkulose a v nemocech plicnich, No 9, Oct 62,
pp 633-638

"The First Introduction of the Laryngeal Swab Technique for
Tuberculosis Diagnosis."

VINNIKOV, P.L.; SLEPOVA, R.I.; SATAYEV, I.F.

Inhalation of calcium chloride aerosols in the compound treatment of pulmonary tuberculosis. Kaz.med.zhur. no.4:7-9 J1-Ag '62.

(MIRA 15:8)

1. Kafedra ftiziatrit (zav. - dotsent P.L.Vinnikov) Kazanskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey imeni Lenina na baze gosspitalya invalidov Otechestvennoy voyny (nachal'nik - N.S.Valseyev) i protivotuberkuleznyy sanatoriy "Tarlovka" (glavnyy vrach - T.N.Ayzatullina).

(TUBERCULOSIS) (AEROSOL THERAPY) (LIME, CHLORIDE OF)

VINNIKOV, P.L.

Skin tuberculin allergy in elderly patients with pulmonary tuberculosis. Trudy TSIU 63:64-72 '63. (MIRA 17:9)

1. Kafedra tuberkuleza Kazanskogo gosudarstvennogo institut dlya usovershenstvovaniya vrachey imeni lenina na baze gosпитalya invalidov Otechestvennoy voyny i gorodskogo protivotuberkuleznogo dispensera.

GILYAZUTDINOVA, Z.Sh., dotsent: VINNIKOV, P.L.; GUBAYDULLINA, M.V.

Tuberculosis of female genitalia. Kaz.med. zhurn. no.2:
22-25 Mr-Apr'63 (MIRA 16:11)

1. 2-ya kafedra akusherstva i ginekologii (zav.-prof. I.V. Danilov), kafedra tuberkuleza (zav. - dotsent P.L.Vinnikov) Kazanskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey imeni Lenina i 7-ya zhenskaya konsul'tatsiya (glavnyy vrach polikliniki - V.D.Potukin), Kazan'.

*

VINNIKOV, P.L.; ROZENGARTEN, M.Yu.

Case of surgical treatment of a cervical oleoma complicated by
an extrapleural oleothorax. Kaz. med. zhur. no. 2:70-72 Mr-Apr
'61. (MIRA 14:4)

1. Kafedra ftiziatriti Kazanskogo gosudarstvennogo instituta dlya
usovershenstvovaniya vrachey imeni V.I. Lenina i Kazanskiy
gospital' invalidov Otechestvennoy voyny (nachal'nik - N.S. Valeyev).
(LUNGS—COLLAPSE) (NECK—TUMORS)

VINNIKOV, P.L.

Aerosol therapy in pulmonary tuberculosis. Kaz.med.shnr. 41
no.1:16-21 Ja-F '60. (MIRA 13:6)

1. Iz kafedry tuberkuleza Kazanskogo gosudarstvennogo instituta
dlya usovershenstvovaniya vrachev imeni V.I. Lenina i Kazanskogo
tuberkuleznogo gosпиталя invalidov Otechestvennoy voyny.
(TUBERCULOSIS) (AEROSOL THERAPY)

VINNIK, Pavel Yakovlevich; SLAPAK, Mariya Mikhaylovna; MOSHAROVA,
I.P., red.; USANOVA, N.B., tekhn. red.

[Transportation and over-all mechanized reloading of cement
in bulk] Opyt perevozki i kompleksno-mekhanizirovannoi pere-
gruzki tsementa nasyp'iu. Moskva, Izd-vo "Morskoi transport"
1963. 64 p. (MIRA 16:12)
(Cement--Transportation)

VINNIKOV, S.

Help to improve accounting on collective farms. Den. 1 kred.
20 no.11:56-59 N '62. (MIRA 16:1)

1. Nachal'nik otdela kreditovaniya kolkhozov Omskoy kontory
Gosbanka.

(~~Omsk Province~~—Banks and banking)

(~~Omsk Province~~—Collective farms—Accounting)

VINNIKOV, V., podpolkovnik

Develop a highly active defense. Voen. vest. 41 no.1:26-30
Ja '62. (MIRA 16:11)

AP6018954 (A) RO
 AUTHOR: Vinnikov, V. (Colonel) SOURCE CODE: UR/0018/66/000/002/0040/0044
 ORG: none
 TITLE: Training a company to take advantage of the results of nuclear strikes
 SOURCE: Voyenny vestnik, no. 2, 1966, 40-44
 TOPIC TAGS: military training, nuclear warfare training
 ABSTRACT: A tank company must be trained to take advantage of the results of nuclear strikes in an offensive manner in all tactical and combat senses of the word; this must be done by company training with subsequent practice and habituation. The author does not agree with previous opinion to the effect that at the moment of a nuclear explosion the tanks should continue in movement, being driven with closed eyes. In his opinion, since in an explosion of 100 kilotons the flash lasts only 4.6 seconds, it is more expedient to brake the tanks to a halt smoothly, with closed eyes; such a temporary stop will not affect the average rate of movement and order will be maintained in the column. It is very important not to look in the direction of the blast, since

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Card 2/2

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VINNIKOV, Ya.A.; TITOVA, L.K.

Presence and distribution of acid phosphatase in the organ of Corti in animals kept in relative quiet and in animals exposed to noise [with summary in English]. Biul. eksp. biol. i med. 44 no.10:60-63 0 '57. (MIRA 11:2)

1. Iz instituta evolyutsionnoy fiziologii imeni I.M.Sechenova (dir. - akademik L.A.Orbeli) Akademii nauk SSSR, Leningrad. Predstavlena akademikom L.A.Orbeli)

(LARYRINTH, metabolism,

Corti's organ acid phosphatase in animals, eff. of noise)
(PHOSPHATASES,

acid, in Corti's organ, eff. of noise in animals)
(NOISE, effects,

on Corti's organ acid phosphatases in animals (Rus))

VINNIKOV, Ya.A.; TITOVA, L.K.

In vivo observations on an isolated organ of Corti under usual conditions and under application of sound stimuli. Dokl. AN SSSR 116 no.2:327-330 S '57. (MIRA 11:2)

1. Institut evolyutsionnoy fiziologii im. I.M. Sechenova AN SSSR.
Predstavleno akademikom L.A. Orbeli.
(MAR)

VINNIKOV, Ya. A.

20-5-48/48

AUTHORS: Vinnikov, Ya. A. and Titova, L. K.

TITLE: Presence and Distribution of Glycogen in the Organ of Corti at Relative Rest and Under Application of Sound Stimuli (Nalichiye i raspredeleniye glikogena v kortiyevom organe vo vremya otnositel'nogo pokoya i v usloviyakh zvukovogo vozdeystviya)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 5, pp. 892 - 895 (USSR)

ABSTRACT: The histochemical investigation of the Corti organ showed in its elements an unusual high content of glycogen (references 4 and 5). Its character and the distribution was changed hereby according to the circumstance whether the experimental animal was in a state of relative rest or of a functional stress. The authors carried out three series of experiments: Series I - the experimental animals (guinea pigs, rabbits, and young cats) were in the state of relative rest. The glycogen distribution was here, according to the kind of experimental animal, different. In the case of guinea pigs the glycogen is concentrated only in the exterior hair cells of the entire Corti organ in all labyrinth ducts. It lacks in the inner hair cells. One succeeds to observe the neurons of the spinal ganglia in total preparations, which correspond to the single la-

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Presence and Distribution of Glycogen in the Organ of Corti at Relative Rest and Under Application of Sound Stimuli

byrinh ducts. Here single glycogen granulae are found in it. In the case of rabbits the glycogen granulae are in the inner hair-cells, in contrast to the guinea pigs. In general the total picture corresponds to that of the guinea pigs. In the case of young cats as well as in the case of guinea pigs the glycogen lacks in the inner hair cells. Series II - the animals were exposed to a high sound frequency (1500 gts, 95 db). In the case of all experimental animals the content and the distribution character of the glycogen changed. After an action of 1 hour it was found in the exterior hair cells which lie in the hind and partly central arch that the glycogen of the excited hair cells loses here its granular shape and becomes a diffuse shape (figure 2). The concentration of the diffuse glycogen increases in the direction of the basal pole and rises here rapidly. Thus the presence of the apico-basal gradient in the distribution and the concentration of the glycogen in the excited exterior hair cells can be found. Simultaneously also a general radial gradient of the increase of the concentration of the apico-basal gradient of the distribution of the glycogen exists, beside the last mentioned. However, the general concentration of the glycogen in the hair cells of rabbits and

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20-5-48/48

Presence and Distribution of Glycogen in the Organ of Corti at Relative Rest and Under Application of Sound Stimuli

young cats is inferior to that of guinea pigs to a considerable extent. Analogous alterations were also observed in the IIIrd experimental series, when the experimental animals were exposed to a low sound frequency (300 gts, 95 db). However, in contrast to the second series the alterations in the hair cells were observed only in the range of the upper and partly central arch. Thus the experiments carried out show clear alterations in the character and in the distribution of the glycogen in the exterior hair cells of the Corti organ, in the state of a relative rest as well as in the state of excitation by the action of sound stimuli. The excitation of the hair cells is connected on the one hand with the frequency of the sound waves and on the other hand with their position in the one or other arch of the labyrinth. The consumption (probably by means of the glycogenolysis) and the resynthesis of the glycogen take place parallelly with it. There is no reason to doubt that the glycogen is subjected to analogous alterations and plays the same rôle in the Corti organ, in the lever, in the muscles, in the nervous system, and in the retina (references 2, 3, 6 - 11). There are 2 figures, 11 references, 6 of which are Slavic.

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20-5-48/48

Presence and Distribution of Glycogen in the Organ of Corti at Relative Rest and Under Application of Sound Stimuli

ASSOCIATION: Institute for Evolutionary Physiology imeni I. M. Sechenov, AN USSR
(Institut evolyutsionnoy fiziologii im. I. M. Sechenova Akademii nauk SSSR)

PRESENTED: June 3, 1957, by L. A. Orbeli, Academician

SUBMITTED: May 9, 1957

AVAILABLE: Library of Congress

Card 4/4

VINNIKOV, P.L.

History of the technique of examining laryngeal smears for
the diagnosis of tuberculosis in children. *Pediatrics* 4 no.7:
77-80 J1'63 (MIRA 16:12)

1. Iz kafedry ftiziatriti Kazanskogo instituta usevershenstvovaniya vrachey imeni V.I.Lenina na baze Gosptalya invalidov Otechestvennoy voyny (nachal'nik - zasluzhennyy vrach RSFSR M.S. Valeyev).

ALSHIBAYA, D.Ye.; VINNIKOV, P.L. (Kazan')

Effect of the intrapleural administration of novocaine on
"insatiable" pneumothorax. Klin. med. 40 no.12:36-41
D '62. (MIRA 17:2)

1. Iz kafedry ftiziatriti Kazanskogo instituta usovershenstvovaniyu vrachey imeni V.I. Lenina na baze gosspitalya invalidov Otechestvennoy voyny (nachal'nik - zasluzhennyy vrach RSFSR N.S. Valeyev).

VINNIKOV, P.L.

Method of determination of tracheal displacement. Sov.med.
22 no.10:113-114 0 '58 (MIRA 11:11)

1. Iz kafedry tuberkuleza Kazanskogo instituta usovershenstvovaniya
vrachey i Kazanskogo gosspitalya invalidov Otechestvennoy voyny.
(THORAX, dis.
causing tracheal displacement, diag. (Rus))
(TRACHEA,
displacement due to thorax dis., diag. (Rus))

VINNIKOV, P.L.

Elimination of side-effects arising in tuberculous patients treated
with PAS. Sov.med. 23 no.10:123-126 0 '59. (MIRA 13:2)

1. Iz kafedry tuberkuleza Kazanskogo instituta usovershenstvovaniya
vrachev (direktor - prof. I.V. Danilov) i Kazanskogo tuberkuleznogo
gospitalya dlya invalidov Otechestvennoy voyny (nachal'nik - zaslu-
zhennyy vrach RSFSR N.S. Valeyev).
(SALICYLIC ACID toxicology)

VINNIKOV, P.L. (Ust'-Kamenogorsk)

~~Additional~~ possibilities of pleuroscopy. Vrach.delo no.2:199-200
(MLRA 9:7)
P '56.

1. Vostochno-Kazakhstanskiy oblastnoy protivotuberkuleznyy dispanser.
(PLEURA--DISEASE) (CHEST--SURGERY)

VINNIKOV, P.L., kandidat meditsinskikh nauk

Perforation of cavern into the extrapleural cavity treated by closed
cauterisation. Khirurgiia 33 no.3:120-122 Mr '57. (MLBA 10:6)

1. Iz kafedry tuberkuleza (sav. - prof. B.Ya.Sadogurskiy)
Stalinskogo instituta usovershenstvovaniya vrachey (dir. - prof.
A.N.Araviyskiy).

(PLEURA, perf.

cavern perf. into extrapleural cavity, surg.,
closed cauterization (Rus))

VINNIKOV, P.L.

Retrograde lymph circulation and zones of hypersensibilization in
pleuroscopy. Probl. tuberk., Moskva no.1:17-22 Jan-Feb 1953.
(GIML 24:2)

1. Of the Clinic for Pulmonary Tuberculosis (Head -- Honored Worker
in Science Prof. V. I. Zyuzin), Kazakh Medical Institute imeni V. M.
Molotov (Director -- Docent S. R. Karynbayev).

VINNIKOV, P.L.

Case of a patient's death following an injection of camphor oil.
Sov. med. 25 no.3:142-143 Mr '61. (MIRA 14:3)

1. Iz kafedry tuberkuleza Kazanskogo gosudarstvennogo instituta
usoverzhenstvovaniya vrachey i gosptalya invalidoy Otechestvennoy
voyny (nachal'nik - zasluzhennyy vrach RSFSR N.E.Valeyev).
(CAMPBOR--TOXICOLOGY) (TUBERCULOSIS)

1. VINNIKOV, P. L.
2. USSR (600)
4. Lymph
7. Retrograde lymph flow and zones of hypersensitization as revealed by pleuroscopy.
Probl. tub., No. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

VINNIKOV, P.L.

Use of venous stasis "under the tourniquet" for evaluating
tuberculin tests. Kaz. med. zhur. no.5:12-17 S-0 '61. (MIRA 15:3)
(TUBERCULIN—TESTING)

DESHKO, M., polkovnik; VINNIKOV, V., podpolkovnik; RYABOV, N., podpolkovnik

"Tactics of small units in modern combat"; discussion of the
article published in No.2. Voen. vest. 43 no.9:34-36 S '63.
(MIRA 16:10)

(Tactics)

VINNIKOV, V., polkovnik

If one shows creative power. Voen. vest. 44 no. 6:23-27
Je '64. (MIRA 17:6)

VINNIKOV, V., podpolkovnik

Utilization of the results of nuclear attacks. Voen. vest.
42 no.3:24-27 Mr '63. (MIRA 17:1)

VINNIKOV, V., podpolkovnik

Night operations know how to orient well. Starsh.-serzh.
no.5:10-11 My '63. (MIRA 16:10)

WINNIKOV, V., podpolkovnik

We are studying atomic weapons. Voen. vest. 42 no.10:45-59 0 '62.
(MIRA 15:10)

(Atomic weapons)

VINNIKOV, V., podpolkovnik; RYABOV, N., mayor

"Tankman on foot"; organizing and conducting tank drill for crews
in winter. Voen. vest. 40 no. 1:52-56 Ja '61. (MIRA 13'12)
(Tanks (Military science))

SEMENOV, I., polkovnik; ZASUKHIN, B., polkovnik zapasa; VINNIKOV, V.,
podpolkovnik; TIGANIN, A., mayor

We discuss the article "Attack of rifle units." Voen. vest. 41
no.3:40-43 Mr 62. (MIRA 15:4)
(Attack and defense (Military science))

VINNIKOV, Ye. I., and DUMANSKIY, A. V.

"Physico-Chemical Analysis of the Colloidal Systems. Antagonism of ions in the coagulation of hydrophobic sols," ZhKhKh, 5, 1933, 1934.

VINNIKOV, YA. A.

"Experimental Hystological Investigations Into The Contractile Tissue Of The Iris; Department Of General Morphology (Chief: Prof. A. A. Zavarzin); Division Of Experimental Hystology And Tissue Culture, All-Union Institute Of Experimental Medicine; And The Cytology Division (Chief: Prof. N. G. Khlopin) Oncological Institute, Leningrad." (p. 975) by Vinnikov, Ya. A.

SO: PREDECESSOR OF JOURNAL OF GENERAL BIOLOGY. (Biologicheskii Zhurnal) Vol. VII 1938, Nos. 5-6

11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

1ST AND 2ND CODES

PROCESSING AND PROPERTY INDEX

3RD AND 4TH CODES

CLASSIFICATION

11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

VIENNIKOV, Ye. A.

BC

Growth and transformation in cells of myo-neural elements (epithelium and diater of the iris). J. A. Viennikov. Cand. and Acad. Sci. U.S.S.R., 1952, 22, 1192-1193. - Epithelium of rabbit (pigmented and albino) and of pig embryos were studied in three cultures for 2 months. The epithelium of the iris is developed from a fold of retinal layers and myoepithelial cells appear. The epithelium or blood vessels grow among the differentiating cells; in the ventral part of the iris, epithelium appears, eventually non-epithelial elements appear. The epithelium is preserved. Any cells of the epithelium of the iris modified cells appear gradually into the cells of growth or remain for a long period within the epithelium where they gradually transform into epithelium. From the elements of the ventral layers of the iris. Epitheliation causes the elements of the diater of the iris to be modified in a similar way.

C. A. A.

DEPT. GEN. MORPHOLOGY, LUNGING BRANCH VIEM,

11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

1ST AND 2ND CODES

PROCESSING AND PROPERTY INDEX

3RD AND 4TH CODES

1ST AND 2ND CODES										3RD AND 4TH CODES									
PROCESSES AND PROPERTIES INDEX																			
VINNIKOV, Ya. A.																			
<p>Growth and development in vitro of the iridescent portion of the choroid coat (pigment). J. A. Vinnikov (Odesa; Acad. Sci. U.S.S.R., 1958, 24, 211-212). A description is given of the histological appearance in pig embryos and in new- born and adult rabbits; flesh shines and normally pigmented animals. W. F. F.</p>																			
A.S.B. 5.1.1 METALLURGICAL LITERATURE CLASSIFICATION																			
1ST AND 2ND CODES										3RD AND 4TH CODES									
1ST AND 2ND CODES										3RD AND 4TH CODES									
1ST AND 2ND CODES										3RD AND 4TH CODES									

Ya A.
VINNIKOV, J. A.

"Experimental Embryology and Histology of the Eye-Cup and Its Derivatives" (p. 119)
by Vinnikov, J. A.

SO: Advances in Contemporary Biology, (Uspekhi Sovremennoi Biologii), Vol. X, No. 1,
1939

GROWTH AND DIFFERENTIATION OF THE RETINA IN VIVO. J. A. VERNIKOV, (Chugov road, Acad. Sci. U.S.S.R., Moscow, U.S.S.R.)—A description of the development of the rabbit retina both in vivo and in vitro. The differentiation of retinal tissue after long cultivation in vitro is also described. K. T.

Ya. A.
VINNIKOV, J. A.

J. A. Winnikov: "Experiment of philontogenetic classification of receptors (sensory organs) in vertebrates." (p. 345)

SO: Journal of General Biology Vol. 7, No. 5, 1944

[illegible]

357 AND 2ND ORDER										180 AND 6TH ORDER									
PROCESS AND PROPERTY INDEX																			
<div style="position: relative;"> BC 17-4 <div style="position: absolute; top: 350px; left: 300px; transform: rotate(-15deg); border: 1px solid black; padding: 5px;"> <p>Examination of materials of this nature and some other A. V. V. (Comp. and Prop. of A. V. V., 1968, 1-4-68) This material was examined by the author (hanging drop) and some were studied by the author (hanging drop) on the stages of growth. The results are described in and cytological characteristics of the cells are described in both the living and fixed state. The results are described in demonstrating early determination of the species and neural material. Divergent development was observed as early as the gastrular stage. J. D. B.</p> </div> </div>																			
ASB-5LA METALLURGICAL LITERATURE CLASSIFICATION										6-2-72, 2-2-72									
357 AND 2ND ORDER										180 AND 6TH ORDER									
357 AND 2ND ORDER										180 AND 6TH ORDER									

1ST AND 2ND BOOKS										3RD AND 4TH BOOKS									
PROCESSES AND PROPERTIES INDEX																			
<div style="text-align: right;">A-4</div> <div style="text-align: center;"> <p> <i>bc</i> </p> <p> <i>74</i> </p> <p> Examination of ground metals in America. J. A. Vianthay (Comm. 1941). Ed. O. H. ... Embryonic metal crusts were grown in place for periods not less than 2-4 months (having ... and ...) ... of the ... is believed to ... of other workers ... J. D. B. </p> </div>																			
ASB-5LA METALLURGICAL LITERATURE CLASSIFICATION										BOOKS COVERED LISTED ON P. 111									
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BOOKS COVERED LISTED ON P. 111										BOOKS COVERED LISTED ON P. 111									

VINNIKOV, YA. A. (Moscow)

"Nervous Tube Development and the Differentiation of Neurons" (p.373) by Vinnikov, Ya. A.

SO: Advances in Modern Biology (Uspekhi Sovremennoi Biologii) Vol. XXI, No. 3, 1946

VIINIKOV, Ya. A.

"Further Observations on the Transformation of the Eye Retina of Vertebrates in Tissue Cultures," Dokl. Ak. SSSR, 52, No.7, 1946

Inst. of Neurology, AMS USSR

VINNIKOV, Ya. A.

"Transformation and Proliferation of Elements of the Eye Lens in Tissue Cultures,"
Dokl. AN SSSR, 52, No.8, 1946

Inst. of Neurology, AMS USSR

VINNIKOV, Ya. A.

USSR/Medicine - Retina
Medicine - Transplantation

Jul/Aug 1947

"Experimental Histological Investigations of the Optic Part of the Retina: Part II, Internal Optic Layer,"
Ya. A. Vinikov, Dept of Experimental Histology and Tissue Culture, Institute of Experimental Medicine, Leningrad, Laboratory of Comparative Anatomy and Histology of the Nervous System, Institute of Neurology, Academy of Medical Sciences of the USSR, Moscow, 34 pp

"Izv Ak Nauk Ser Biol" No 4

Experiments with a rabbit, from the 12th day of intra-uterine life to the 10th day of postfetal life; a chicken from the 4th day of incubation to 5th day of

LC

35T56

VINNIKOV, Ya. A.

"The development and orientation of nerve fibers." (p. 47) by J. A. Vinnikov.

SO: Advances in Modern Biology (Uspekhi Sovremennoi Biologii) Vol. XXIII, No. 1, 1947

VINNIKOV, Ya. A.

USSR/Medicine - Tissue
Medicine - Cells

21 Jan 1948

"Transformation and Proliferation of Father Pacini
Corpuscles in Skin Cultures," Ya. A. Vinnikov, Ye. A.
Berlin, Inst of Neurology, Acad Med Sci USSR, 4 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 3

Explains tissue nature, hence the genesis of cells of
an internal vas, and covering elements of concentric
membranes of external capsules of Father Pacini cor-
puscles. Submitted by Academician I. I. Shmal'gauzen.
2 Nov 1947.

42T39

VIMNIKOV, Ya. A.

24232

VIMNIKOV, Ya. A. Klassifikatsiya retseptorov i nekotoryye voprosy neytral'noy integratsii. Trudy Akad. Nauk. SSSR. T. III, 1949, S. 90-94.

SO: Letopis, No. 32, 1949.

BC VINNIKOV, Ya. A. A3
10

Transplantation of olfactory mucosa in conditions of tissue culture.
[Illegible text] (1960, 66, 109-112).
[Illegible text] olfactory mucous
[Illegible text] of the labyrinth of the
[Illegible text] with the olfactory organ,
[Illegible text] rabbits and puppies up to 12-20 days
old, and human embryos in their later stages. The olfactory cells
not only perished at the place of the injury but also at a noticeable
distance from it. In tissue culture it was shown that, in spite of
the inflicted injury, not all olfactory cells degenerate. On the
contrary, the greater part of them proved to be extremely viable,
[Illegible text] and multiplying in a hazy-
[Illegible text] after
[Illegible text] a new formation of the
[Illegible text] H. TAUBER.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

REGION SYMBOL		RELIST ONE ONE ONE	
REGION	SYMBOL	RELIST	ONE ONE ONE
1A	1A	1A	1A
1B	1B	1B	1B
1C	1C	1C	1C
1D	1D	1D	1D
1E	1E	1E	1E
1F	1F	1F	1F
1G	1G	1G	1G
1H	1H	1H	1H
1I	1I	1I	1I
1J	1J	1J	1J
1K	1K	1K	1K
1L	1L	1L	1L
1M	1M	1M	1M
1N	1N	1N	1N
1O	1O	1O	1O
1P	1P	1P	1P
1Q	1Q	1Q	1Q
1R	1R	1R	1R
1S	1S	1S	1S
1T	1T	1T	1T
1U	1U	1U	1U
1V	1V	1V	1V
1W	1W	1W	1W
1X	1X	1X	1X
1Y	1Y	1Y	1Y
1Z	1Z	1Z	1Z

Ya A

VINNIKOV, I. A.

"Olfactory Receptor" (p. 391-411) by Vinnikov, I. A.

SO: Progress of Contemporary Biology, (Uspekhi Sovremennoi Biologii) Vol. LXIX, No. 3, 1950.

VINNIKOV, Ya.A.

"Some problems in the morphology and physiology of secondary degeneration of peripheral nerves. L.I.Falin. Reviewed by IA.A. Vinnikov. Usp.sovr. biol. 39 no.3:380 My-Je '55 (FALIN, L.I.) (MLRA 8:11) (NERVOUS SYSTEM--DEGENERATION AND REGENERATION)

VINNIKOV YA. A.
EXCERPTA MEDICA SEC 11 Vol. 10/1 O. R. L. Jan 57

11. VINNIKOV I. A. Lab. of Comparative Anat. and Histol., Acad. of Med. Scis, Moscow, USSR. *The histological changes in the linings of the nasal cavities and in the organ of smell in monkeys caused by experimentally induced poliomyelitis (Russian text) KORSAKOFF Z. NEVROPAT. PSIKHIAT. (Mosk.) 1955, 55/2 (105-109) Illus. 4

A statement is made of the findings gained by histological investigation of the linings of the nasal cavities and the organ of smell in monkeys (*Macaca rhesus*), when infected by the virus of poliomyelitis in different ways: 7 animals were infected through the nose; 11 monkeys, serving as controls, were infected through the tonsils. In this latter group, no changes of any kind were found in the nasal mucosa. In the animals infected through the nose, different stages of necrobiosis were seen on the 3rd-10th day of the illness in the stratified, ciliated epithelium and oedema in the subjacent connective tissue. A reactive, proliferative reaction was noticed in the sensory nerve endings in the form of a multitude of club-shaped bodies, invading the respiratory epithelium; and distinct myelin lesions, vacuolization and dissolution. The myelin destruction was accompanied by accumulation of connective tissue cells with lipoid granules; inclusions. In the receptor cells of the mucosa, necrobiotic changes and characteristic pictures of a retrograde degeneration in the central, axon-like processes were seen. Heavy destructive changes and oedema were observed in the bundles of the olfactory nerve, in the olfactory bulbs, in the first neurones of the olfactory analyser, in the mitral cells, in the neurones of the vegetative system and in the fibres of the trigeminal nerve system. The progress of the virus along the nervous system considerably outstrips the cycle of the morphological changes.

Uranova - Moscow (XX, 5, 11)

Vinnikov, Ya. A.
USSR/General Biology / Individual Development.

B-4

Abs Jour : Ref Zhur - Biol., No 7, 1958, 28528

Author : Vinnikov, Ya.A., Titova, L.K.

Inst : -

Title : Development of Sensory Organs in Vertebrates.

Orig Pub : Probl. sovrem. embriologii. L., Un-t, 1956, 89-96

Abstract : Review of the role of contacting and synaptic bonds in development of sensory organs.

Card 1/1

VINNIKOV, Ya.A. (Leningrad, Stalingradskiy pr., d. 164, kv. 13)

Structure of the olfactory organ. Arkh.anat.gist. i embr. 33
no.3:48-54 J1-S '56. (MIRA 12:11)

1. Iz kafedry gistologii i embriologii (zav. - prof.Ya.A.
Vinnikov) Turkmenskogo med. inst. im. I.V.Stalina.

(NASAL CAVITY, anatomy and histology,
olfactory organ (Rus))

(SMELL,
same)

EXPERIMENTAL MEDICINE Sec. 2 Vol. 15/7 Phy. Biochem. July 57

3023. VINNIKOV, Y. A. *Olfactomotor reaction of the receptor cells of the olfactory apparatus (Russian text)* Usp. sovr. Biol. 1956, 41/3 (353—366) Ill. 11

The work of the author and co-workers in the last few years is surveyed under the following headings: (1) Review of the literature. (2) Histology of the peripheral sensory field of olfaction, with special attention to studies in mammalian species. (3) Shifting of 'patches' in the olfactory receptors under the influence of an olfactory stimulus. It is pointed out that the existence of this phenomenon is now an established fact and that it is comparable with the peculiar shifts in the sensory cells of the retina. (4) Theories of olfaction, with special attention to those on a physical or chemical basis. No satisfactory theory has yet been evolved. A great deal of work along morphological, physiological, histophysiological and histochemical lines will be necessary before any degree of insight into this peculiarly difficult problem can be achieved.

Von Skramlik — Berlin

VINNIKOV, Ya.A.,

Degenerative and restorative processes in the olfactory organ in fish and amphibians. Biul.eksp.biol. 1 med. 42 no.10:57-59 0 '56.
(MLRA 9:12)

1. Iz kafedry gistologii Turkmenskogo gosudarstvennogo meditsinskogo instituta, Ashkhabad.

(SMELL,

degen. & regen. of olfactory organ in fish & amphibians
(Rus))

(FISH,

degen. & regen of olfactory organs (Rus))

USSR/Human and Animal Physiology - The Sensory Organs.

V-9

Abs Jour : Ref Zhur - Biol., No 4, 1958, 18668

Author : Ya. A. Vinnikov

Inst :

Title : Degenerative and Restorative Process in the Mammalian Olfactory Organ.

Orig Pub : Byul. eksperim. biol. i meditsiny, 1956, 42, No 11, 63-65.

Abstract : Among 40 white rats damaging the receptor layer of the olfactory lining of the nasal cavity with a blade and removing the olfactory bulb of one (the right) side of the brain led to the degeneration of olfactory cells, nerve fibers, mitral neurons and elements of the vomeronasal organ. The degeneration spread beyond the zone of direct damage, and even partially to the opposite side. Over a period of 6 months reparative processes were noted only in the supporting elements and cells of glandular and respiratory epithelia. Regeneration of olfactory cells was not detected during this period of time.

Card 1/1

VINNIKOV, Ya.A.

Olfactory bulb culture in cerebral tissue explants taken from mammals and human fetuses. Dokl.AN SSSR 107 no.3:473-475 Mr '56.(MIRA 9:7)

1.Institut zoologii Akademii nauk USSR. Predstavleno akademikom L.A. Orbeli.

(Olfactory nerve) (Tissue culture)

VINNIKOV, Ya. A.

Olfactory membrane explants cultured in nasal cavity epithelial tissues taken from mammals and human fetuses. Dokl. AN SSSR 107 no. 4:589-591 Ap '56. (MIRA 9:7)

1. Predstavleno akademikom L. A. Orbeli.
(TISSUE CULTURE) (NOSE)

USSR / General Biology. General Histology.

B-3

Abs Jour: Ref Zhur-Biol., No 10, 1958, 42785.

Author : Vinnikov, Ya. A.

Inst : Not given.

Title : In Vitro Cultivation of Presumptive Embryonic Olfactory Organs in Amphibians (Grass Frog).

Orig Pub: Dokl. AN SSSR, 1956, 108, No 5, 973-975.

Abstract: A study was conducted on grass frog embryos at late gastrula and neurula stages. A layer of the olfactory organ, isolated by micrurgy, was cultivated in a liquid (Goltfreter physiological solution) or solid medium (a mixture of hypotonized plasma and embryonic extract). In the liquid

Card 1/3

USSR / General Biology. General Histology.

B-3

Abs Jour: Ref Zhur-Biol., No 10, 1958, 42785.

Abstract: medium the explantate was converted into a closed ectodermal vesicle in which by the 4-8th day an olfactory pit was formed. Its cells are filled with yolk and are almost completely non-pigmented. They are arranged in many-layered rows on connective tissue bedding, in which separate chromatophores are visible. By the 10-13th day the olfactory pit markedly thickens and has the appearance of a half-moon. Its elements are free of yolk and are intensively reproduced by mitosis. Individual differentiated supporting and olfactory cells are visible. Peripheral offshoots of the latter units into bundles connecting with clearly differentiated portions of brain tissue, located within the explantate. By the 20-30th day the explantate dies. When cultivated on a thick medium, no form development

Card 2/3

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USSR / General Biology. General Histology.

B-3

Abs Jour: Ref Zhur-Biol., No 10, 1958, 42785.

Abstract: occurred. The cellular elements of the foundation passed into the surrounding medium and formed a growth zone of a glial type.

Card 3/3

VISHNIKOV, Ya. A.; TITOVA, L. K.

[Morphology of the organ of smell] Morfologiya organa obonaniia.
Moskva [Medgiz], 1957. 295 p.
(OLFACTORY NERVE)

VINNIKOV, Y. A.

20-2-46/50

AUTHORS: Vinnikov, Ya. A., Titova, L. K.

TITLE: In Vivo Observations on an Isolated Organ of Corti Under Usual Conditions and Under Application of Sound Stimuli (Prizhiznennyye issledovaniya nad izolirovannym kortiyevym organom v obychnykh usloviyakh i pri zvukovom vozdeystvii)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 2, pp. 327-330 (USSR)

ABSTRACT: The cochleae of guinea-pigs, small cats, and rabbits served as experimental objects. Beside the control which was not stimulated by sound the authors exposed only the isolated organ in a series of experiments to a sound stimulation (1500 or 300 c, 95 db) of the duration of one hour and in a second series of a duration of 1-3 hours. After killing the experimental animals the sound stimulation was continued in the thermostats 1/2-1 hour at 37°. The isolated cochleae were given into a Ringer's solution without soda at 37°. The cochleae, in most cases left ones, were conserved as control; the right ones coloured in vivo with neutral red. The investigation was carried out under magnification by a magnifier. For the microscopic and phase-contrast-investigation the cochlea was dissected in windings which were cut off subsequently and put in physiological solution on the object carrier. The pictures observed here are described. The sound stimulation with high and low frequencies did not change these pictures, only in the case that an

Card 1/3

In Vivo Observations on an Isolated Organ of Corti Under Usual 20-2-46/50
Conditions and Under Application of Sound Stimuli.

unimportant diffuse colouring of the fundamental substance of the basilar membrane is indicated. The membrane reacts, however, to the slightest touch often with a characteristic wave-like vibration. The Corti organ is then described in detail with the picture of the in vivo colouring. Under the action of the sound stimulus the picture changes rapidly, independently of the fact whether the action on the animal took place before or after the extirpation or in both cases. On the level of the lower and partly also of the middle winding in many exterior hair cells swellings and vacuolization of the cytoplasm or, in contrast, core compressions at sound stimulation of high frequency are observed. In the case of longer action the cells become ball-like. Single cells can fall out of the total mosaic of the organ. The inner hair cells become similar, but changed to a smaller extent. Analogous alterations occur with different variations in the upper winding of the cochlea in the case of action of low frequencies. The Corti organ shows a viability in isolated state. Without sound action a very characteristic rosette- or bunch-like granule depositing occurs in the exterior and inner hair cells, strictly in their apical part. Under the influence of high frequency sound stimulus the granule depositing is changed or stopped, especially within the range of the lower and middle winding. The granules become greater.

Card 2/3

20-2-46/50

In Vivo Observations on an Isolated Organ of Corti Under Usual Conditions and Under Application of Sound Stimule.

Also in the exterior hair cells the granule formation is increased and their size and number increases rapidly. High and low frequencies increase the granule formation to a certain extent, also in the Deuters cells and in the exterior as well as in the inner columns. Phalanges remain, as a rule, uncoloured. In the neurons of the spiral ganglion a similar increase of the granule formation under the influence of the sound stimulus can be detected. The above mentioned cyto- and histophysiological observations facilitate to detect to a certain degree the specific reaction of the hair cells to the sound stimulation which differs from that of other objects. The reaction of the secells to sound of high or low frequency corresponds more or less to their position in the Corti organ, i.e. on the level of the upper or lower winding. There are 5 references 2 of which are Slavic.

ASSOCIATION: Institute for Evolutionary Physiology imeni I.M.Sechenov AN USSR (Institut evolyutsionnoy fiziologii im.I.M.Sechenova AN SSSR)

PRESENTED: June 3, 1957 by L.A.Orbell, Academician

SUBMITTED: May 26, 1957

AVAILABLE: Library of Congress

Card 3/3

Country : USSR T
Subject : Human and Animal Physiology, Sensory Organs
Abstr. Jour. : Ref Zhur Biol, No. 2, 1959, No. 8540
Author : Vinnikov Ya.A., Titova L.K.
Institut. : --
Title : The Presence and Distribution of Glycogen in
the Organ of Corti during Relative Rest and
in the Presence of a Sound Stimulus.
Orig. Pub. : Dokl. AN SSSR, 1957, 116, No. 5, 892--895

Abstract : no abstract

Card: 1/1

BAYYER, V. [Beier, Walter], doktor filos.; DERNER, E. [Dörner, Erich],
doktor med.nauk; MIRIMOV, L.M. [translator]; TARABRIN, V.I.
[translator]; VINNIKOV, Ya.A., red.; KHARASH, G.A., tekhn.red.

[Ultrasonic waves in biology and medicine] Ul'trazvuk v biologii
i meditsine. Gos.izd-vo med.lit-ry, Leningr. otd-nie, 1958. 185 p.
(MIRA 12:5)

(ULTRASONIC WAVES)

VINNIKOV, Yn.A., BORODINA, N.P.

Materials on a morphological analysis of ocular movements. Probl.
fiziol. opt. 12:394-397 '58 (MIRA 11:6)

1. Kafedra gistologii i embriologii Turkmenskogo gosudarstvennogo
meditsinskogo instituta.
(EYE--MOVEMENTS)

VINNIKOV, Ya.A., TITOVA, L.K.

Presence and distribution of alkaline phosphatase in the organ of Corti in animals during comparative quiet and following sound stimulation [with summary in English]. Biul. eksp. biol. i med. (MIRA 11:5)
'45 no.3:101-106 Mr'58

1. Iz Instituta evolyutsionnoy fiziologii imenii I.M. Sechenova (dir. - akademik L.A. Orbeli) Akademii nauk SSSR, Leningrad. Predstavlena akademikom L.A. Orbeli.

(LABYRINTH, metabolism,

Corti's organ alkaline phosphatase, eff. of sound stimulation (Rus))

(PHOSPHATASES,

alkaline in Corti's organ, eff. of sound stimulation (Rus))

(NOISE, effects,

on Corti's organ alkaline phosphatase (Rus))

VINNIKOV, Ya. A., TITOVA, L.K.

Distribution of nucleic acids in the hair cells of the organ of Corti in animals during relative rest and during sound stimulation [with summary in English]. Biul.eksp.biol. i med. 45 no.4:73-78
Ap '58 (MIRA 11:5)

1. Iz Instituta evolyutsionnoy fiziologii imeni I.M. Sechenova (dir. - akademik L.A. Orbeli), Leningrad. Predstavlena akademikom L.A. Orbeli.

(LABYRINTH, metabolism

nucleic acid distribution in hair cells of organ of Corti during rest & during sound stimulation (Rus))

(NUCLEIC ACIDS, metabolism

distribution in hair cells of organ of Corti during rest & during sound stimulation (Rus))

AUTHORS: Vinnikov, Ya. A., Titova, L. K. 20-119-1-45/52

TITLE: The Occurrence and the Distribution of Specific Acetyl-
-Cholinesterase in the Cortian Organ of Animals in a
State of Relative Rest and Under Conditions of Sonic
Stimuli (Nalichiye i raspredeleniye spetsificheskoy
atsetilkholinesterazy v kortiyevom organe zhivotnykh,
nakhodyashchikhsya v sostoyanii otnositel'nogo pokoya i
v usloviyakh zvukovogo vozdeystviya)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 1,
pp. 164-167 (USSR)

ABSTRACT: After the authors had determined that the endogenous
energetic substratum of the Cortian organ is glycogen
(Reference 1) in the splitting of which and resynthesis
non specific enzymes participate (alkaline and acid phos-
phatase, References 2,3) it was natural to begin with the
investigation of the cholinergic structures of this organ.
The data referring to this are scarce and uncertain (Ref-
erences 4-6). A survey of the present stand of this problem
in publications (References 7-19) is given. The participa-
tion of the carbohydrate metabolism in the synthesis of

Card 1/4

The Occurrence and the Distribution of Specific
Acetyl-Cholinesterase in the Cortian Organ of
Animals in a State of Relative Rest and Under
Conditions of Sonic Stimuli

20-119-1-45/52

acetylcholine which plays a main part in the trans-synaptic transfer of the nervous impulse at present is considered an established fact. The newest histochemical methods (References 16-19) make it possible to determine the localization of the specific acetyl-cholinesterase (AChE) and consequently to judge on the occurrence of acetylcholine. Thereby the occurrence and the distribution of the enzyme mentioned in the title makes possible the judgement on the dynamics of formation and the transfer of the nervous impulse. In the present paper such a problem is posed with regard to the Cortian organ, its system of synapses between the ciliary cells and the peripheral afferent endings of the neurons of the spinal ganglion and the efferent endings of the vegetative olivo-cochlear-bundle of Rasmussen (Reference 20). Experiments were made with 40 cochleae of 16 young cats and 4 guinea pig. In series I (control series, 6 animals) the Cortian organ of animals

Card 2/4

The Occurrence and the Distribution of Specific
Acetyl-Cholinesterase in the Cortian Organ of
Animals in a State of Relative Rest and Under
Conditions of Sonic Stimuli

20-119-1-45/52

in relative rest was investigated. In series II the animals (7) were previously exposed to the influence of low frequencies (300 cycles, 95 db). In series III (7 animals) high frequencies (1500 cycles, 95 db) were used. In series II and III the sonic stimuli were also continued after the beheading of the animals until the fixation. In the cochleae of the control animals a sharply outlined regular dark-brown strip along the outside edge of all 3 windings even becomes visible under the magnifying glass. This localization of the enzyme corresponds to the position of the Cortian organ (figure 1), to the level of the inner ciliary cells and the inner spiral-plexus. In other parts of the organ the activity of the enzyme is absent. In series II of the experiments the distribution of AzChE is only changed at the level of the upper and the upper part of the middle winding, where the concentration of the enzyme

Card 3/4 .

The Occurrence and the Distribution of Specific
Acetyl-Cholinesterase in the Cortian Organ of
Animals in a State of Relative Rest and Under
Conditions of Sonic Stimuli

20-119-1-45/52

rapidly decreases (figure 3). In series III the distribution of AzChE 's on the whole only changed at the level of the lower and the lower part of the middle winding. From the results can be concluded that the specific enzyme AzChE - vice versa acetylcholine - plays the main part in the formation and the passing on of nervous impulses in the domain of the inner-organic cochlear synapses. There are 4 figures and 25 references, 10 of which are Soviet.

ASSOCIATION: Institut evolyutsionnoy fiziologii im. I. M. Sechenova
Akademii nauk SSSR (Institute for Evolutionary Physiology
imeni I. M. Sechenov AS USSR)

PRESENTED: September 26, 1957, by L. A. Orbeli, Academician

SUBMITTED: September 20, 1957

Card 4/4

47(1)

AUTHORS: Vinnikov, Ya. A., Titova, L. K.

SOV/20-122-5-48/56

TITLE: The Presence and Distribution of Succinhydrase and Cytochromoxidase in Corti's Organ of Animals at the State of Relative Rest, and Subjected to Sonic Treatment (Nalichiye i raspredeleniye suksindegidrazy i tsitokhromoksidazy v kortiyevom organe zhivotnykh, nakhodyashchikhsya v sostoyanii otnositel'nogo pokoya i v usloviyakh zvukovogo vozdeystviya)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 5, pp 921 - 924 (USSR)

ABSTRACT: The occurrence of succinhydrase (SDH) and cytochromoxidase (CChO) in the tissues of animal organisms, and that of the corresponding substrates is not only related to the aerobic oxidation but also to the anaerobic glycolysis. This actually characterizes the energy household of the organ. The SDH dehydrates under aerobic conditions the succinic and fumaric acid as it contains a sulfhydryl group in its prosthetic group; the former

Card 1/5

The Presence and Distribution of Succin dehydrogenase and Cytochromoxidase in Corti's Organ of Animals at the State of Relative Rest, and Subjected to Sonic Treatment SOV/20-122-5-48/56

is a condition for the fact that the system cytochrome -C-cytochromoxidase has a hydrogen acceptor effect with iron in its prosthetic group (Ref 1). As it is usually possible to localize the SDH and CChO in the organs by means of modern methods the distribution of these ferments may be used as classification medium as to what an extent the one or the other structural component participates in the energy processes, and in how far the latter cause the carrying out of the functions of these structures. As the authors proved an endogenic energetic substratum - glycogen - in Corti's organ (Ref 2) the colloidal state of which changed under the influence of sounds of different frequency it was only natural that an experiment of a histochemical investigation of the SHD and CChO was carried out with the same object. The authors give the results of such experiments in Corti's organ and in the ganglion of the 8th nerve. By means of total preparation altogether 120 Corti's

Card 2/5

The Presence and Distribution of Succinate dehydrogenase and Cytochrome oxidase in Corti's Organ of Animals at the State of Relative Rest, and Subjected to Sonic Treatment

SCV/26-122-5-48/56

organs of guinea pigs, rabbits and cats were investigated. The animals were decapitated either at a state of relative rest (control) or after 1 hour high-frequency sonic treatment (1500 c, 95 db), or at low frequencies (300 c, 95 db). The results obtained showed a characteristic distribution of SDH and CChO in the structures of Corti's organ. In the outer "haircells" (naruzhnyye volosovyye kleti) and in the neurons of the spiral ganglion, especially in the former, also other complex fermentative systems are localized, as well as nucleic acids and glycogen (Refs 8-12). Under the influence of functional stress - sound - the distribution changes and so does the activity of the SDH as well as of the CChO and other chemical reagents investigated by the authors. The activity of the SDH and apparently also of the CChO in the receptor elements and in the neurons of the lower windings of the cochlea decreases. The lower frequencies effect the decrease of the activity of

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The SHD and apparently also of the CChO in the receptor elements and the upper windings of the cochlea. The most important fact is, according to the authors' opinion, the simultaneous localization of a great number of ferments (Refs 8-10) besides glycogen and nucleic acids (Refs 2,12) in the cytoplasm of the outer "haircells". The SDH and CChO are included. As a rule they are characterized by a low activity. Apparently the differences formed during the evolution processes in the distribution of the chemically active substances do not only cause the specific character of the molecular structure and of the energy household of the receptor elements but also the special character of their stimulation. There are 4 figures and 14 references, 10 of which are Soviet.

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17(1)

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TITLE:

Histochemical Investigations of the Receptor Structures (of the Maculae Acusticae and Auditory Crests) of the Vestibular Part of the Labyrinth of Mammals (Gistokhimicheskiye issledovaniya retseptornykh struktur (slukhovykh pyaten i grebeshkov) vestibulyarnoy chasti labirinta mlekopitayushchikh)

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 6, pp 1111 - 1114 (USSR)

ABSTRACT:

In a number of previous papers (Refs 1 - 7) on the Corti organ the author investigated the occurrence and distribution of several chemically active substances by which the metabolism and the energy supply of the receptor and auxiliary cells of this organ and of the 8th ganglion are conditioned. As is known, the vestibular part of the labyrinth works as equilibrium organ. Altogether 7 series of experiments were carried out with 160 guinea pigs, rabbits, and cats which were relatively quiet. After they were decapitated the internal ear was detached from the osseous cover and fixed. The author describes the structure of the vestibulum. In grown-up (and non-albinotic) guinea pigs and rabbits the chromatophores

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form tight agglomerations under the epithelium of the connective tissue. Glycogen, specific acetyl-choline esterase (AChE), non-specific choline esterase, alkaline and acid phosphatase, succindehydrase (SDH), and cytochrome oxydase (CChO) could be found neither in the epithelial nor in the connective tissue. Ribonucleic acid (RNA) and desoxyribonucleic acid (DNA) were distributed in the common way in epithelial cells and in the connective tissue under these epithelial cells. Glycogen occurs in diffuse form in the receptor elements of the maculae acusticae; apparently it is lacking in the supporting cells below. Glycogen on the other hand is accumulated in the supporting elements of the boundary zone as small granulae which glut the cell body. The activity of the alkaline phosphatase can be observed in the cytoplasm and in little hairs of the receptor cells within the whole area of the maculae acusticae. This ferment is diffusely concentrated in the cytoplasm. The acid phosphatase is absent in the hair- as well as in the supporting

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